

## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 07/01/2020

Reviewed on 07/01/2020

### \* 1 Identification

- **Product Identifier**
- **Trade Name: Hexane**
- **CAS Number:**  
110-54-3
- **EC number:**  
203-777-6
- **Index number:**  
601-037-00-0
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** No further relevant information available.
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**  
EcoGreen Industries, LLC  
5208 Industrial Way Suite A  
Anderson, CA 96007  
Phone: (530) 378-4443  
Fax: (888) 612-3207
- **Emergency telephone number:**  
Chemtrec (US): (800) 424-9300  
Chemtrec (Outside US): (703) 527-3887 (Collect calls accepted)

### 2 Hazard(s) Identification

- **Classification of the substance or mixture:**



Flame

Flam. Liq. 2      H225 Highly flammable liquid and vapor.



Health hazard

Repr. 2      H361 Suspected of damaging fertility or the unborn child.  
STOT RE 2      H373 May cause damage to organs through prolonged or repeated exposure.  
Asp. Tox. 1      H304 May be fatal if swallowed and enters airways.



Environment

Aquatic Chronic 2      H411 Toxic to aquatic life with long lasting effects.



Skin Irrit. 2      H315 Causes skin irritation.  
STOT SE 3      H336 May cause drowsiness or dizziness.

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**Trade Name: Hexane**

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Danger

- **Hazard-determining components of labeling:**

Hexane

- **Hazard statements:**

H225 Highly flammable liquid and vapor.

H315 Causes skin irritation.

H361 Suspected of damaging fertility or the unborn child.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

- **Precautionary statements:**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 If swallowed: Immediately call a poison center/doctor.

P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

P331 Do NOT induce vomiting.

P302+P352 If on skin: Wash with plenty of water.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P312 Call a poison center/doctor if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

P362+P364 Take off contaminated clothing and wash it before reuse.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.

P391 Collect spillage.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Unknown acute toxicity:**

This value refers to knowledge of known, established toxicological or ecotoxicological values.

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0 % of the mixture consists of component(s) of unknown toxicity.

- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	3	Fire = 3
REACTIVITY	0	Physical Hazard = 0

- **Hazard(s) not otherwise classified (HNOC):** None known

### 3 Composition/Information on Ingredients

- **Chemical characterization: Substance**
- **CAS No. Description**  
110-54-3 Hexane
- **Identification number(s)**
- **EC number:** 203-777-6
- **Index number:** 601-037-00-0

### 4 First-Aid Measures

- **Description of first aid measures**
- **General information:** If symptoms persist, call a physician.
- **After inhalation:**  
In case of unconsciousness place patient stably in the side position for transportation.  
Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
If skin irritation occurs, consult a doctor.
- **After eye contact:**  
If eye irritation occurs, consult a doctor.  
Rinse opened eye for several minutes under running water.
- **After swallowing:**  
Contact a physician or Poison Control Center immediately.  
Do not induce vomiting without medical advice.  
Never give anything by mouth to an unconscious person.  
To prevent aspiration of swallowed product, lay victim on side with head lower than waist.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**  
No further relevant information available.

### 5 Fire-Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture:** No further relevant information available.

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**Trade Name: Hexane**

- **Advice for firefighters**
- **Special protective equipment for firefighters:**  
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

## 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to section 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents  
Dispose of the collected material according to regulations.
- **Reference to other sections:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· <b>PAC-1:</b>	260 ppm
· <b>PAC-2:</b>	2900* ppm
· <b>PAC-3:</b>	8600** ppm

## 7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect from heat.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.
- **Specific end use(s):** No further relevant information available.

## 8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.

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**Trade Name: Hexane**

· **Control parameters:**

· **Components with occupational exposure limits:**

**110-54-3 Hexane**

PEL	Long-term value: 1800 mg/m <sup>3</sup> , 500 ppm
REL	Long-term value: 180 mg/m <sup>3</sup> , 50 ppm
TLV	Long-term value: 176 mg/m <sup>3</sup> , 50 ppm Skin; BEI

· **Ingredients with biological limit values:**

**110-54-3 Hexane**

BEI	0.4 mg/L urine end of shift at end of workweek 2,5-Hexanedione without hydrolysis
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· **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

· **Exposure controls:**

· **Personal protective equipment**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

· **Breathing equipment:** Not required.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Select glove material based on penetration times, rates of diffusion and degradation.

· **Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material:**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· **Eye protection:**



Tightly sealed goggles

· **Limitation and supervision of exposure into the environment:**

Keep away from drains, surface and ground waters.

Avoid release into the environment.

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Trade Name: Hexane

### 9 Physical and Chemical Properties

#### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

Form:	Liquid
Color:	Colorless
Odor:	Characteristic
Odor threshold:	Not determined.

· pH-value: Not determined.

#### · Change in condition

Melting point/Melting range: -95 °C (-139 °F)

Boiling point/Boiling range: 69 °C (156.2 °F)

· Flash point: -26 °C (-14.8 °F)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 240 °C (464 °F)

· Decomposition temperature: Not determined.

· Auto igniting: Not determined.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

#### · Explosion limits:

Lower: 1.2 Vol %

Upper: 7.4 Vol %

· Vapor pressure @ 20 °C (68 °F): 160 hPa (120 mm Hg)

· Density @ 20 °C (68 °F): 0.66 g/cm<sup>3</sup> (5.5077 lbs/gal)

· Relative density: Not determined.

· Vapor density: Not determined.

· Evaporation rate: Not determined.

#### · Solubility in / Miscibility with:

Water @ 20 °C (68 °F): 0.1 g/l

· Partition coefficient (n-octanol/water): Not determined.

#### · Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

Organic solvents: 100.0 %

VOC content: 100.00 %

Solids content: 0.0 %

· Other information: No further relevant information available.

### 10 Stability and Reactivity

· Reactivity: No further relevant information available.

· Chemical stability: Product is stable under normal conditions.

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· Possibility of hazardous reactions: No dangerous reactions known.

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**Trade Name: Hexane**

- **Conditions to avoid:** Heat, flame and ignition sources.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

**11 Toxicological Information**

- **Information on toxicological effects:**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**110-54-3 Hexane**

Oral	LD50	25,000 mg/kg (Rat)
Inhalative	LC50/4 h	48,000 mg/l (Rat) 1 hour

- **Primary irritant effect:**
- **On the skin:** Irritant to skin and mucous membranes.
- **On the eye:** No irritating effect.
- **Additional toxicological information:**

- **Carcinogenic categories:**

- **IARC (International Agency for Research on Cancer):**

Substance is not listed.

- **NTP (National Toxicology Program):**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

Substance is not listed.

**12 Ecological Information**

- **Toxicity:**

- **Aquatic toxicity:**

Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

**110-54-3 Hexane**

EC50	12,840 mg/l (Green algae)
	3,878 mg/l (Water flea) (48 hr)

- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Toxic for fish

- **Additional ecological information:**

- **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- **Results of PBT and vPvB assessment:**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects:** No further relevant information available.

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### 13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, IMDG, IATA** UN1208
- **UN proper shipping name:**
- **DOT** Hexanes
- **ADR/ADN** UN1208 HEXANES, ENVIRONMENTALLY HAZARDOUS
- **IMDG** HEXANES, MARINE POLLUTANT
- **IATA** HEXANES
- **Transport hazard class(es):**
- **DOT**



- **Class:** 3 Flammable liquids
- **Label:** 3

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· **ADR/ADN**



- **Class:** 3 (F1) Flammable liquids
- **Label:** 3

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· **IMDG**



- **Class:** 3 Flammable liquids
- **Label:** 3

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· **IATA**



- **Class:** 3 Flammable liquids
- **Label:** 3

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**Trade Name: Hexane**

- **Packing group:** II
  - **DOT, ADR/ADN, IMDG, IATA** II
  - **Environmental hazards:**
  - **Special marking (ADR/ADN):** Symbol (fish and tree)
  - **Special precautions for user:** Warning: Flammable liquids
  - **Hazard identification number (Kemler code):** 33
  - **EMS Number:** F-E,S-D
  - **Stowage Category** E
  - **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
  - **Transport/Additional information:**
  - **DOT**
  - **Quantity limitations:** On passenger aircraft/rail: 5 L  
On cargo aircraft only: 60 L
  - **Hazardous substance:** 5000 lbs, 2270 kg
- 
- **ADR/ADN**
  - **Excepted quantities (EQ):** Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml
- 
- **IMDG**
  - **Limited quantities (LQ):** 1L
  - **Excepted quantities (EQ):** Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml
  - **UN "Model Regulation":** UN 1208 HEXANES, 3, II, ENVIRONMENTALLY HAZARDOUS

## 15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

· <b>Section 355 (extremely hazardous substances):</b>
Substance is not listed.

· <b>Section 313 (Specific toxic chemical listings):</b>
Substance is listed.

· <b>TSCA (Toxic Substances Control Act):</b>
ACTIVE

· <b>Hazardous Air Pollutants</b>
Substance is listed.

· **California Proposition 65:**

· <b>Chemicals known to cause cancer:</b>
Substance is not listed.

· <b>Chemicals known to cause reproductive toxicity for females:</b>
Substance is not listed.

· <b>Chemicals known to cause reproductive toxicity for males:</b>
Substance is listed.

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<b>· Chemicals known to cause developmental toxicity:</b>	
Substance is not listed.	
<b>· New Jersey Right-to-Know List:</b>	
Substance is listed.	
<b>· New Jersey Special Hazardous Substance List:</b>	
	F3
<b>· Pennsylvania Right-to-Know List:</b>	
Substance is listed.	
<b>· Pennsylvania Special Hazardous Substance List:</b>	
Substance is not listed.	
<b>· Carcinogenic categories:</b>	
<b>· EPA (Environmental Protection Agency):</b>	
	II
<b>· TLV (Threshold Limit Value established by ACGIH):</b>	
Substance is not listed.	
<b>· NIOSH-Ca (National Institute for Occupational Safety and Health):</b>	
Substance is not listed.	

**· GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

**· Hazard pictograms:**



**· Signal word:** Danger

**· Hazard-determining components of labeling:**

Hexane

**· Hazard statements:**

- H225 Highly flammable liquid and vapor.
- H315 Causes skin irritation.
- H361 Suspected of damaging fertility or the unborn child.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H304 May be fatal if swallowed and enters airways.
- H411 Toxic to aquatic life with long lasting effects.

**· Precautionary statements:**

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 Wash thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.



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P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	If swallowed: Immediately call a poison center/doctor.
P321	Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
P331	Do NOT induce vomiting.
P302+P352	If on skin: Wash with plenty of water.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a poison center/doctor if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P370+P378	In case of fire: Use for extinction: CO2, powder or water spray.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

**· National regulations:**

Non-Regulated Material

**· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**16 Other Information**

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

**· Date of last revision/ revision number:** 07/01/2020 / 2**· Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety and Health  
OSHA: Occupational Safety & Health Administration  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
BEI: Biological Exposure Limit  
Flam. Liq. 2: Flammable liquids – Category 2  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Repr. 2: Reproductive toxicity – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· **\* Data compared to the previous version altered.**

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